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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,612	07/14/2004	Eric Sitbon		2221

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EXAMINER

MENEZES, MARCUS

ART UNIT PAPER NUMBER

3677

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/501,612

Applicant(s)

SITBON ET AL.

Examiner

Marcus Menezes

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 and 15 is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 13, 14 and 16-49 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. This is in response to claims 1-49 filed on July 14, 2004 in which claims 3-9, 11-27, 29, and 32-34 were replaced.
2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because the heading should read Abstract or Abstract of the Disclosure. Correction is required. See MPEP § 608.01(b) and 37 CFR 1.72.

Claim Objections

4. Claims 1-49 are objected to because of the following informalities: All amendments to claims must list all claims including claims, which have not been amended, onto a single document. Appropriate correction is required.
5. Claims 1-49 are objected to because the preamble of each of these claims is non-idiomatic English; such as "bra as claimed" and "Device as claimed."

Art Unit: 3677

6. Claim 12 is objected to because of the following informalities: the second line includes "pieces of the the end of greater". Examiner suggests deleting the extra "the". Appropriate correction is required.
7. Claim 20 is objected to because of the following informalities: the second line includes non-idiomatic English: "formed by or a strap". Examiner suggests deleting the "or" from the phrase. Appropriate correction is required.
8. Claim 20 is objected to because of the following informalities: the second line includes "one of the magnetic first and second parts". Examiner suggests changing the "and" to an – or. Appropriate correction is required.
9. Claim 21 is objected to because of the following informalities: the second line includes "one of the magnetic first and second components". Examiner suggests changing the "and" to an – or. Appropriate correction is required.
10. Claim 26 is objected to because of the following informalities: "leadst" in the second line should be changed to – least -- and "galvinization" in the third line should be changed to – galvanization. Appropriate correction is required.
11. Claim 27 is objected to because of the following informalities:
"mentionned" in the third line should be change to – mentioned. Appropriate correction is required.
12. Claim 28 is objected to because of the following informalities: "accross" in the third line should be changed to – across. Appropriate correction is required.
13. Claim 35 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim is found in the recitation of "any of the

Art Unit: 3677

preceding claims.” See MPEP § 608.01(n). Accordingly, the claim 35 has not been further treated on the merits.

14. Claims 35-41 and 43-45 are objected to because of the following informalities: “it” recited in these claims should be further defined. Appropriate correction is required.

Claim Rejections - 35 USC § 112

15. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The “other element” stated in claim 4 is not clearly defined.

16. Claim 5 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot be written in cumulative form. Claim 5 currently states “any of the preceding claims”. This phrase should be changed to read – any one of the preceding claims. See MPEP § 608.01(n). Accordingly, the claim 5 is not further treated on the merits.

17. Claim 10 recites the limitation “the magnetic field,” “the higher plane,” and “the bottom.” There is insufficient antecedent basis for these limitations in the claim.

18. Claim 21 recites the limitation “aforementioned strap.” There is insufficient antecedent basis for this limitation in the claim.

19. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter

Art Unit: 3677

which applicant regards as the invention. The "magnetic zone" stated in claim 21 is not clearly defined.

20. Claim 28 recites the limitation "the opened slots" in the third line of the claim. There is insufficient antecedent basis for this limitation in the claim.

21. Claims 35-49 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim (claim 5) cannot serve as a basis for any other multiple dependent claim (claim 35). See MPEP § 608.01(n) and 37 CFR 1.75(c). Accordingly, the claims 35-49 are not further treated on the merits.

22. Claims 36-49 recite the following: bra, garter belt, guepiere, watch, cap, sport shoe, bag, and skirt; all of which render the claims indefinite since there is a lack of antecedent basis for the bra, garter belt, guepiere, watch, cap, sport shoe, bag, and skirt in the base claim.

Claim Rejections - 35 USC § 102

23. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

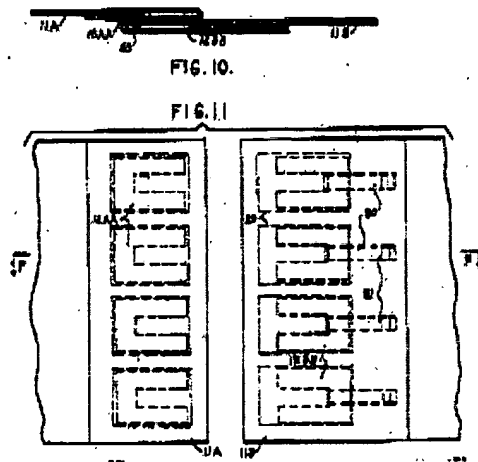
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

24. Claims 1,3,6,7,8,9,14,16,17,20,21,23,24,32,33, and 34 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ellis (US Patent No. 2,389,298).

Regarding claims 1 and 3, Ellis discloses of an apparel fastener comprising of a first part equipped with at least one magnetic component (12BB) and a second part equipped with at least a second magnetic component (12AA).

Art Unit: 3677

Ellis further discloses that this fastener is for securing clothing together. (See p. 1, col. 1, lines 1-5). Additionally, Ellis discloses that each magnetic component is composed of a magnet with positive and negative magnetic pieces, whereas the magnets of similar structure are fixed directly or indirectly to the same support and are able to interact with magnetic pieces of opposite signs on a second magnetic component. (See Fig. 10 and 11).



Regarding claim 6, Ellis discloses of magnets (12AA) of the same component fixed rigidly among each other in an irremovable way. (See Fig. 11 above). Regarding claim 7, Ellis discloses of at least one component of magnets that are laid out in alternation between positive and negative magnets. (See Fig. 11 above). Regarding claim 8-9, Ellis discloses of magnets of the same component that are fixed side by side on the supports (11A, 11B) and of positive magnets on the opposite side of negative magnets, allowing for overlap of each magnetic component. (See Fig. 11 above). Regarding claim 14, Ellis discloses of a first sheath on support 11B where the first component is inserted and is mobile and within the sheath. (See Fig. 11 above). Regarding claims 16 and 17,

Art Unit: 3677

Ellis discloses of a second magnetic component (12AA) that is fixed and of first and second components comprising of two sheaths. (See Fig. 11 above).

Regarding claim 20, Ellis discloses that one of the first or second parts (11A,11B) are formed by a strap. (See p. 1, col. 1, lines 1-5). Regarding claim 21, Ellis discloses that of a magnetic field is formed by the magnetic component on the apparel strap. (See p. 1, col. 2, lines 70-73). Regarding claim 23, Ellis discloses of one or more flat magnets. (See Fig. 10 above). Regarding claims 24 and 32, Ellis discloses that each magnet is placed in an antimagnetic sheath that is capable of serving as an antimagnetic protection measure. Regarding claims 33 and 34, Ellis discloses of an elastic band (30) that is capable of detecting a closing or opening while serving as a release mechanism to control in the event specific conditions are not met.

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

26. Claims 2,11,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of Wong (US Patent No. 6,378,174).

Regarding claim 2, Ellis discloses of magnet components (12AA, 12BB), but fails to teach of at least one magnetic component with a first layer of ferromagnetic soft lining elements.

Wong teaches of a garment magnetic fastener, which includes a magnetic element (7) with a first layer of ferromagnetic soft lining element (8). (See Fig. 4)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the teaching of a magnetic element with a first layer of ferromagnetic soft lining in the Ellis patent in view of the Wong patent in order to concentrate the magnetic force in a desired direction. (See col. 3, lines 61-65).

Regarding claim 11, Ellis discloses of fixed magnetic components in an embodiment illustrated in figure 11, but fails to teach of said magnetic component being inserted into a layer of elastic glue that is resistant to domestic washing.

Ellis teaches in a different embodiment in figure 3 where magnets are glued to cloth flaps. (See p. 2, col. 1, lines 5-10). Further, Wong teaches of a garment magnetic fastener that is washable.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the teaching of a magnetic component with a layer of glue that is resistant to domestic washing in the Ellis patent in view of the Wong patent since glue is an inexpensive alternative to stitches for the purpose of fixing the magnet onto a support. Also, it would have been inherently obvious for the magnetic component to be resistant to domestic washing since the intended use of the component is on garments and apparel accessories, which typically are washed on a routine basis.

Regarding claim 13, Ellis fails to disclose of a magnetic element with pieces at the ends with greater thickness conferring a U section to the

Art Unit: 3677

component with said pieces covering at least part of the external sides of the magnetic element.

Wong teaches of a piece that confers a U section to the magnetic component and covers part of the external sides of the magnetic element. (See Fig. 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the teaching of the pieces that cover via a U-shape part of the magnetic element in the magnetic component in the Ellis patent in view of the Wong patent in order to concentrate the magnetic force in a desired direction. (See col. 3, lines 61-65).

27. Claims 4 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis.

Regarding claim 4, Ellis fails to disclose in the embodiment in figure 10 of another element that is devoid of magnets and shaped from a layer of soft ferromagnetic elements.

Ellis discloses in a different embodiment in figure 3 of a magnet substitute (17) that is shaped from a layer of soft ferromagnetic elements. (See Fig. 3 and p. 2, col. 1, lines 17-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the teaching of an element devoid of magnets with a layer of soft ferromagnetic elements in order to demonstrate alternative placement of magnetic components along the garment.

Art Unit: 3677

Regarding claim 27, Ellis discloses in the embodiment in figure 11 of a mobile magnetic component (12BB) in a sheath that is laterally guided by guiding stem stitches. However, Ellis does not disclose of said stitches going through the said component.

Ellis, in another embodiment illustrated in figure 3, shows a magnetic component (13) with thread stitches (20) running through it.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the teaching of stitches running through the magnetic component in the first embodiment of the Ellis patent in view of the second embodiment of the Ellis patent in order directly secure the magnet to its support on the garment rather than rely on stitching that goes around the magnet forming a sheath; thus allowing the magnet to fall out of said sheath if the sheath were to rip open.

28. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of Clark (US Patent No. 6,412,116).

Ellis discloses of magnetic components encased in sheaths, however Ellis fails to teach that said sheaths are reinforced and include an exterior of silicone.

Clark teaches of an magnetic garment closure involving magnetic disks (31) reinforced by in a silicone sheath (32). (See col. 2, lines 51-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the teaching of a sheath with silicone in the Ellis patent in view of the Clark patent in order to add flexibility and extra strength to the sheath. (See Clark col. 2, lines 51-53).

Art Unit: 3677

29. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of Aoki (US Patent No. 4,991,270).

Ellis fails to disclose of magnets of the magnetic components having a concave shape and their opposite counterparts shaped in a convex form that is complementary to the concave shape.

Aoki teaches of a magnetic fastener with a magnets with concave form and their opposing counterpart magnet shaped in a complementary convex shape. (See Fig. 1 and col. 2, lines 47-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the teaching of magnets of concave and complementary convex shapes in the Ellis patent in view of the Aoki patent in order for the concave magnet to serve as a guide to the convex magnet; thus ensuring maximum contact between the two magnets. (See col. 3, lines 27-33).

30. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of Hicks (US Patent No. 5,926,925).

Ellis fails to mention which family of metals the magnets are composed.

Hicks teaches of a magnetic garment holder that comprises of magnets of type neodymium-iron-boron.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the teaching of a magnet made from the family of rare-earth metals of the type neodyne-fer-boron in the Ellis

Art Unit: 3677

patent in view of the Hicks patent because a neodymium-iron-boron magnet produces a desired high field strength. (See col. 5, lines 44-46).

31. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of Wong (US Patent No. 6,662,349).

Ellis fails to disclose of a magnetic component that is entirely or partially protected by Nickel or Gold galvanization.

Wong teaches of a magnetic strap fastener that includes a magnetic component (10) that is partially protected by a Nickel-plated steel.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the teaching of a magnet that is partially or entirely protected by galvanized Nickel or Gold in the Ellis patent in view of the Wong patent in order to minimize corrosion on the magnetic component.

32. Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of Reiter (US Patent No. 6,647,597).

Ellis discloses of a first magnetic component in the form of a block, however the block is not hollowed out in the axial direction of a cylindrical hole. Also, Ellis does not teach of a second magnetic component, also in block form of identical size equipped with a nipple suitable for joining with the cylindrical hole of the first magnetic component.

Reiter discloses of a magnetic garment fastener made from a block with two cylindrical holes on the first magnetic component and complementary nipples

Art Unit: 3677

on a second magnetic component of identical size. When joined, the two blocks leave space between the contacting walls. (See Fig. 30a).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the teaching of two block magnetic components, one with cylindrical holes and the other component with complementary holes in the Ellis patent in view of the Reiter patent in order to minimize the sliding of the two magnetic components while in the coupled, attracted position. (See col. 5, lines 28).

Allowable Subject Matter

33. Claims 12 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and rewritten to overcome the claim objections set forth in this office action.

34. Claims 10 and 28 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

35. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 5,682,653

US Patent No. 4,021,891

DE 200 18 405

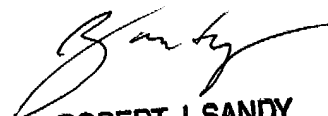
Art Unit: 3677

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Menezes whose telephone number is 571-272-6284. The examiner can normally be reached on 8:00am - 5:30pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marcus Menezes
Examiner
Art Unit 3677



ROBERT J. SANDY
PRIMARY EXAMINER

10/501612

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

In replacement of form PTO/SB/08A (08-03)

DT04 Rec'd PCT/PTO 14 JUL 2004

(*A list of these documents can also be found in the "International Search Report")

First named inventor: ERIC SITBON**International Application No.: PCT/FR03/00109****SHEET 1 OF 2****US PATENT DOCUMENTS**

DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT
MM 4 399 595 A	08-23-1983	J.P. YOON
MM 4 941 236 A	07-17-1990	TIMEX CORPORATION
MM 5 682 653 A	11/04/1997	F. BERGLOF

FOREIGN PATENT DOCUMENTS

MM DE 23 23 058	11-28-1974	KUHN GOTZ-GERD
MM FR 2 786 669 A	06/09/2000	E. SITBON
MM FR 2 005 481 A	12/12/1969	RIEKER & CO
MM GB 2 355 281 A	04-18-2001	P. A. CH. CHOWN
MM PATENT ABSTRACTS OF JAPAN vol. 2000, no. 24 & JP 2001 181907 A	05/11/2001 07/03/2001	KUZUU MIKIO
MM DE 200 18 405 U	01/04/2001	F+E GESELLSCHAFT FUR BEKLEIDUNGSINNOVATION MBH & CO
MM PATENT ABSTRACTS OF JAPAN vol. 010, no. 343 (E-456) & JP 147510 A	11-19-1986 07/05/1986	TAAMO: KK

10/501612

DT04 Rec'd PCT/PTO 14 JUL 2004

INFORMATION DISCLOSURE STATEMENT BY APPLICANT**First named inventor: ERIC SITBON****International Application No.: PCT/FR03/00109****US PATENT DOCUMENTS****DOCUMENT NUMBER****PAGES, COLUMNS, LINES WHERE RELEVANT
PASSAGES OR RELEVANT FIGURES APPEAR**

MM 4 399 595 A

Claim No. 1, 4, 5, 11, 13, 26.
*The whole document

MM 4 941 236 A

Claim No. 1, 6, 9, 10. Claim No. 43: column 2,
last para; column 6, para 1; claims 1-10;
figures 1-6

MM 5 682 653 A

Claim No. 1, 8, 20. Claim No. 41: column 2, line 1

FOREIGN PATENT DOCUMENTS

MM DE 23 23 058

Claim No. 1, 3, 6. Page 5, paragraph 2.; Page
6, last para; Page 8, para 2; Figures 1-7.
Claim No. 14-17; 20-23; 25, 35, 45.

MM FR 2 786 669 A

Claim No. 14-17, 20-23, 25, 35, 45. page 1, last
para; page 7, para 1; Claims 1-7; 11-14;
figures 1-9.

MM FR 2 005 481 A

Claim No. 1, 7, 8. Page 3, line 19; Page 8
para 2; Claims 1-14; figures 1-5. Claim No. 35, 45

MM GB 2 355 281 A

Claim No. 1, 33-35, 43, 45, 48. Pg. 2, para 2;
Pg. 5, para 3; Claims 1-14; figures 1-4MM PATENT ABSTRACTS OF JAPAN
vol. 2000, no. 24
& JP 2001 181907 A

Claim No. 1, 44, 45

MM DE 200 18 405 U

Claim No. 1, 35, 36

MM PATENT ABSTRACTS OF JAPAN
vol. 010, no. 343 (E-456)
& JP 147510 A

Claim No. 23, 29, 31

EXAMINER SIGNATURE: **DATE CONSIDERED:** 10/31/05

Notice of References Cited	Application/Control No. 10/501,612	Applicant(s)/Patent Under Reexamination SITBON ET AL.	
	Examiner Marcus Menezes	Art Unit 3677	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-2,389,298	11-1945	ROBERT ELLIS	335/303
	B	US-6,378,174	04-2002	Wong, Sheung Chung	24/303
	C	US-6,412,116	07-2002	Clark, Wayne	2/129
	D	US-4,991,270	02-1991	Aoki, Yoshihiro	24/303
	E	US-5,926,925	07-1999	Hicks, Joel R.	24/303
	F	US-6,662,349	12-2003	Morgan et al.	716/10
	G	US-6,647,597	11-2003	Reiter, Howard J.	24/303
	H	US-5,682,653	11-1997	Berglof et al.	24/303
	I	US-4,021,891	05-1977	Morita, Tamao	24/303
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N	DE 20018405 U1	01-2001	Germany		A41C 03/04
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.



⑮ BUNDESREPUBLIK
DEUTSCHLAND



DEUTSCHES
PATENT- UND
MARKENAMT

⑫ **Gebrauchsmusterschrift**
⑩ **DE 200 18 405 U 1**

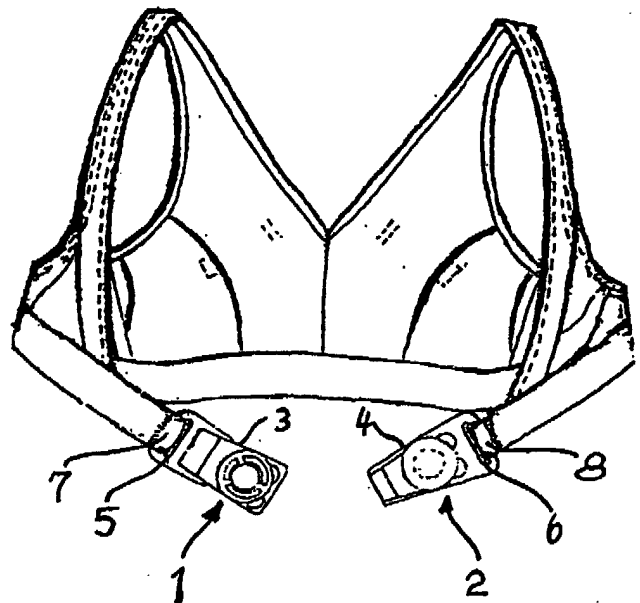
⑤ Int. Cl. 7:
A 41 C 3/04
A 41 C 3/12

⑲ Aktenzeichen:	200 18 405.9
⑳ Anmeldetag:	20. 10. 2000
㉑ Eintragungstag:	4. 1. 2001
㉒ Bekanntmachung im Patentblatt:	8. 2. 2001

DE 200 18 405 U 1

- ⑬ Inhaber:
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Co. KG, 83098 Brannenburg, DE
- ⑭ Vertreter:
Böning, M., Prof. Dr.-Ing., Pat.-Anw., 14050 Berlin

- ⑤4 Büstenhalter
- ⑤7 Büstenhalter, insbesondere Stillbüstenhalter mit mindestens zwei an den Enden zweier zu verbindender Abschnitte des Büstenhalters angeordneten Verschlussteilen, dadurch gekennzeichnet, daß die Verschlussteile (1, 2; 27, 28) einen Magnetverschluß bilden.



DE 200 18 405 U 1

B 11.11.00

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1664/23 577 DE

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der
F+E Gesellschaft für
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Büstenhalter

Die Erfindung betrifft einen Büstenhalter, insbesondere Stillbüstenhalter mit mindestens zwei an den Enden zweier zu verbindender Abschnitte des Büstenhalters angeordneten Verschußteilen.

Büstenhalter sind regelmäßig mit Verschlüssen zum Verbinden der Enden ihrer Rückenteile, zum Verbinden unterteilter Träger und zum Verbinden ihrer Cups mit Trägern ausgestattet. Es ist bekannt, derartige Verschlüsse als Haken- und Ösenverschlüsse, als Druckknopfverschlüsse und als Haftreißverschlüsse auszubilden. Alle bekannten Verschlüsse müssen vielfach, insbesondere wenn sie die Enden von Rückenteilen miteinander verbinden, "blind" verschlossen werden. Hierbei stellt sich regelmäßig das Problem der lagegerechten Zuordnung der Verschußteile.

Der Erfindung liegt die Aufgabe zugrunde, einen Büstenhalter zu schaffen, bei dem die Verschußteile sich selbst in ihre korrekte Schließposition bewegen. Gelöst wird die Aufgabe erfindungsgemäß dadurch, daß die Verschußteile einen Magnetverschluß bilden.

DE 200 18 405 U1

Der Vorteil der erfindungsgemäßen Lösung besteht darin, daß die Verschußteile sich aufgrund der zwischen ihnen wirkenden Anziehungskräfte automatisch in ihre Sollposition bewegen.

Als besonders vorteilhaft erweist es sich, wenn jedes Verschußteil einen Kunststoffgrundkörper aufweist, in den jeweils eine Komponente des Magnetverschlusses eingebettet ist, und wenn einer der Kunststoffgrundkörper mit einem Fenster für einen als Rastanschlag ausgebildeten Vorsprung des anderen Kunststoffgrundkörpers verbunden ist.

Weitere Merkmale und Einzelheiten der Erfindung ergeben sich aus den Unteransprüchen und der nachstehenden Beschreibung dreier in der beigefügten Zeichnung dargestellter Büstenhalter und ihrer Verschlüsse. Es zeigen:

- Fig. 1 einen normalen Büstenhalter mit einem erfindungsgemäßen Rückenverschluß;
- Fig. 2 einen Stillbüstenhalter mit einem Verschluß für aufklappbare Cups;
- Fig. 3 die Draufsicht auf die Innenseite des einen der beiden in den Figuren 1 und 2 dargestellten Verschußteile;
- Fig. 4 einen Schnitt längs der Linie IV-IV in Fig. 3;
- Fig. 5 die Draufsicht auf die Innenseite des anderen der beiden in den Figuren 1 und 2 dargestellten Verschußteile;
- Fig. 6 einen Schnitt längs der Linie VI-VI in Fig. 5
- Fig. 7 einen Schnitt durch die zusammengefügte Verschußteile gemäß den Figuren 3 bis 6;
- Fig. 8 einen Schnitt durch die Verschußteile gemäß den Figuren 3 bis 7 in der Öffnungsphase;
- Fig. 9 einen Büstenhalter mit erfindungsgemäßen Verschlüssen für das Rückenteil und die aufklappbaren Cups und

Fig. 10 einen Schnitt durch einen der bei dem Büstenhalter gemäß Fig. 9 verwendeten Verschlüsse.

In Fig. 1 ist der Rückenverschluß eines Büstenhalters im offenen Zustand dargestellt. Die beiden Verschußteile 1 und 2 besitzen einen Kunststoffgrundkörper 3 bzw. 4, der an jeweils einem seiner Enden mit einer Anschlußöse 5 bzw. 6 versehen ist, in die Schlaufen 7 bzw. 8 zweier miteinander zu verbindender Rückenteile eingenäht sind. Die gleichen Verschußteile 1, 2 werden im Falle der Figur 2 genutzt, um die Enden von Trägern 9, 10 mit den oberen Enden von aufklappbaren Cups 11, 12 eines Stillbüstenhalters zu verbinden. Die Verwendung eines Magnetverschlusses bei einem Stillbüstenhalter erweist sich insofern als besonders sinnvoll, weil das Öffnen und Schließen der Cups derartiger Büstenhalter während eines Stillvorganges im Verlaufe des Tages oft unter einem Oberbekleidungsstück erfolgt. In diesem Fall wird insbesondere das Schließen des jeweils geöffneten Cups erheblich erleichtert, weil die Verschußteile beim Schließen einander lediglich angenähert werden müssen, um sich anschließend automatisch in ihre Sollposition zu bewegen.

Einzelheiten des in den Figuren 1 und 2 dargestellten Verschlusses ergeben sich aus den Figuren 3 bis 8.

In den Kunststoffgrundkörper 3 bzw. 4 eines jeden Verschußteiles 1 bzw. 2 ist jeweils ein scheibenförmiger Permanentmagnet 13 bzw. 14 eingebettet. Die Verwendung zweier gegenpolig angeordneter Permanentmagnete bietet gegenüber einer ebenfalls möglichen Paarung aus einem Permanentmagneten und einer Weicheisenscheibe den Vorteil erhöhter Anziehungs- d.h. Positionierungskräfte.

Der Kunststoffgrundkörper 3 des Verschußteiles 1 weist zwei zueinander höhenversetzte Abschnitte auf, von denen einer mit einem Fenster 15 versehen ist, das zur Aufnahme eines Vorsprunges 16 des Verschußteiles 2 dient. Der Vorsprung 16 bildet einen Rastanschlag, der sich in der Schließstellung des Verschlusses gegen eine Stirnfläche 17 des den

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Permanentmagneten 13 beherbergenden Abschnittes des Verschuß-
teiles 1 anlegt, wie dies aus Fig. 7 zu erkennen ist. In der
Schließstellung bildet die Innenseite des nach innen versetz-
ten Abschnittes des Kunststoffgrundkörpers 3 des Verschußtei-
les 1 zusammen mit der Innenseite des Kunststoffgrundkörpers 4
des Verschußteiles 2 eine durchgehende plane Auflagefläche.

Zum Lösen des Verschlusses genügt ein leichter Fingerdruck in
Richtung des Pfeiles 18 in Fig. 7, der zu der in Fig. 8 ge-
zeigten Spaltbildung führt, die ein bequemes Auseinanderziehen
der Verschußteile 1 und 2 ermöglicht. Während der Spaltbil-
dung stützen sich die Grundkörper 3 und 4 längs ihrer eine Art
Gelenk bildenden geraden Kanten 19, 20 aufeinander ab.

Bei dem in Fig. 9 dargestellten Büstenhalter sind nicht nur
die Rückenteile 21, 22, sondern auch die Cups 23, 24 mit Ma-
gnetverschlüssen ausgestattet, wobei zum Verbinden der Cups
23, 24 mit den Trägern 25, 26 Verschlüsse der in Fig. 10 ge-
zeigten Art dienen, deren Aufbau im folgenden näher erläutert
wird.

Auch der Verschuß gemäß Fig. 10 besteht aus zwei Verschuß-
teilen 27 und 28, von denen jeder einen Kunststoffgrundkörper
29 bzw. 30 aufweist, der an jeweils einem seiner Enden mit
einer Anschlußöse 31 bzw. 32 versehen ist, in die Schlaufen
33, 34 zweier jeweils zu verbindender Teile eingenäht sind,
wobei es sich als besonders vorteilhaft erweist, daß die
Schlaufe 33 mit einem Verstellmechanismus 35 kombiniert ist,
der ein Verstellen der Länge der Träger 25, 26 zuläßt.

Jeder der beiden Kunststoffgrundkörper 29, 30 ist wiederum mit
einem Permanentmagneten 36 bzw. 37 ausgestattet. Mit dem
Kunststoffgrundkörper 29 ist zusätzlich eine die Handhabung
des Verschlusses erleichternde Betätigungsschleife 38
verbunden.

Abweichend von der zuvor beschriebenen Lösung weist der Kunst-
stoffgrundkörper 29 des Verschußteiles 27 einen zum Körper
der Trägerin des Büstenhalters gerichteten Vorsprung 39 mit
einer konvexen Außenfläche 40 auf, während das Fenster 41 des

DE 200 18 405 U 1

Kunststoffgrundkörpers 30 mit einer konkaven Innenfläche 42
versehen ist. Durch die geschilderte Ausbildung der Kontakt-
flächen zwischen dem Vorsprung 39 und dem Fenster 41 erreicht
man einen zusätzlichen Halteeffekt nach Art eines Druckknop-
fes. Die Permanentmagnete 36 und 37 erfüllen mit anderen Wor-
ten auch in diesem Falle primär eine Positionierfunktion.

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DE 200 18405 U1

Ansprüche:

1. Büstenhalter, insbesondere Stillbüstenhalter mit mindestens zwei an den Enden zweier zu verbindender Abschnitte des Büstenhalters angeordneten Verschußteilen, dadurch gekennzeichnet, daß die Verschußteile (1, 2; 27, 28) einen Magnetverschluß bilden.
2. Büstenhalter nach Anspruch 1, dadurch gekennzeichnet, daß jedes Verschußteil (1, 2; 27, 28) einen Kunststoffgrundkörper (3, 4; 29, 30) aufweist, in den jeweils eine Komponente des Magnetverschlusses eingebettet ist.
3. Büstenhalter nach Anspruch 1 oder 2, dadurch gekennzeichnet, daß die Komponenten des Magnetverschlusses aus zwei Permanentmagneten (13, 14; 36, 37) bestehen.
4. Büstenhalter nach Anspruch 2 oder 3, dadurch gekennzeichnet, daß die Komponenten des Magnetverschlusses scheibenförmig ausgebildet sind.
5. Büstenhalter nach einem der Ansprüche 1 bis 4, dadurch gekennzeichnet, daß die Kunststoffgrundkörper (3, 4; 29, 30) mit Anschlußösen (5, 6; 31, 32) für die Enden der miteinander zu verbindenden Abschnitte des Büstenhalters versehen sind.
6. Büstenhalter nach einem der Ansprüche 2 bis 5, dadurch gekennzeichnet, daß einer der Kunststoffgrundkörper (3; 30) mit einem Fenster (15; 41) für einen als Rastanschlag ausgebildeten Vorsprung (16; 39) des anderen Kunststoffgrundkörpers (4; 29) versehen ist.
7. Büstenhalter nach Anspruch 6, dadurch gekennzeichnet, daß das Fenster (15; 41) an einer zwischen der Anschlußöse (5; 32) und dem den Permanentmagneten (13; 37) tragenden Abschnitt gelegenen Stelle des Kunststoffgrundkörpers (3; 30) des einen Verschußteiles (1; 28) angeordnet ist.
8. Büstenhalter nach Anspruch 6 oder 7, dadurch gekennzeichnet, daß der Vorsprung (16; 39) am der Anschlußöse (6; 31)

DE 200 18 405 U1

abgewandten Ende des Kunststoffgrundkörpers (4; 29) des anderen Verschußteiles (2; 27) angeordnet ist.

9. Büstenhalter nach einem der Ansprüche 6 bis 8, dadurch gekennzeichnet, daß das Fenster (15) in einem ersten Abschnitt des einen Kunststoffgrundkörpers (3) angeordnet ist, der gegenüber einem zweiten, eine Komponente des Magnetverschlusses aufnehmenden Abschnitt dieses Kunststoffgrundkörpers (3) zur Innenseite des Büstenhalters versetzt ist.

10. Büstenhalter nach Anspruch 9, dadurch gekennzeichnet, daß die Kunststoffgrundkörper (3, 4) der Verschußteile (1, 2) im Schließzustand des Verschlusses aufeinander liegende plane Kontaktflächen aufweisen, die an ihrem dem Fenster (15) und dem Vorsprung (16) abgewandten Ende gerade Kanten (19, 20) aufweisen.

11. Büstenhalter nach einem der Ansprüche 1 bis 8, dadurch gekennzeichnet, daß der Vorsprung (39) eine konvexe Außenfläche (40) und das den Vorsprung (39) aufnehmende Fenster (41) eine konkave Innenfläche (42) aufweist.

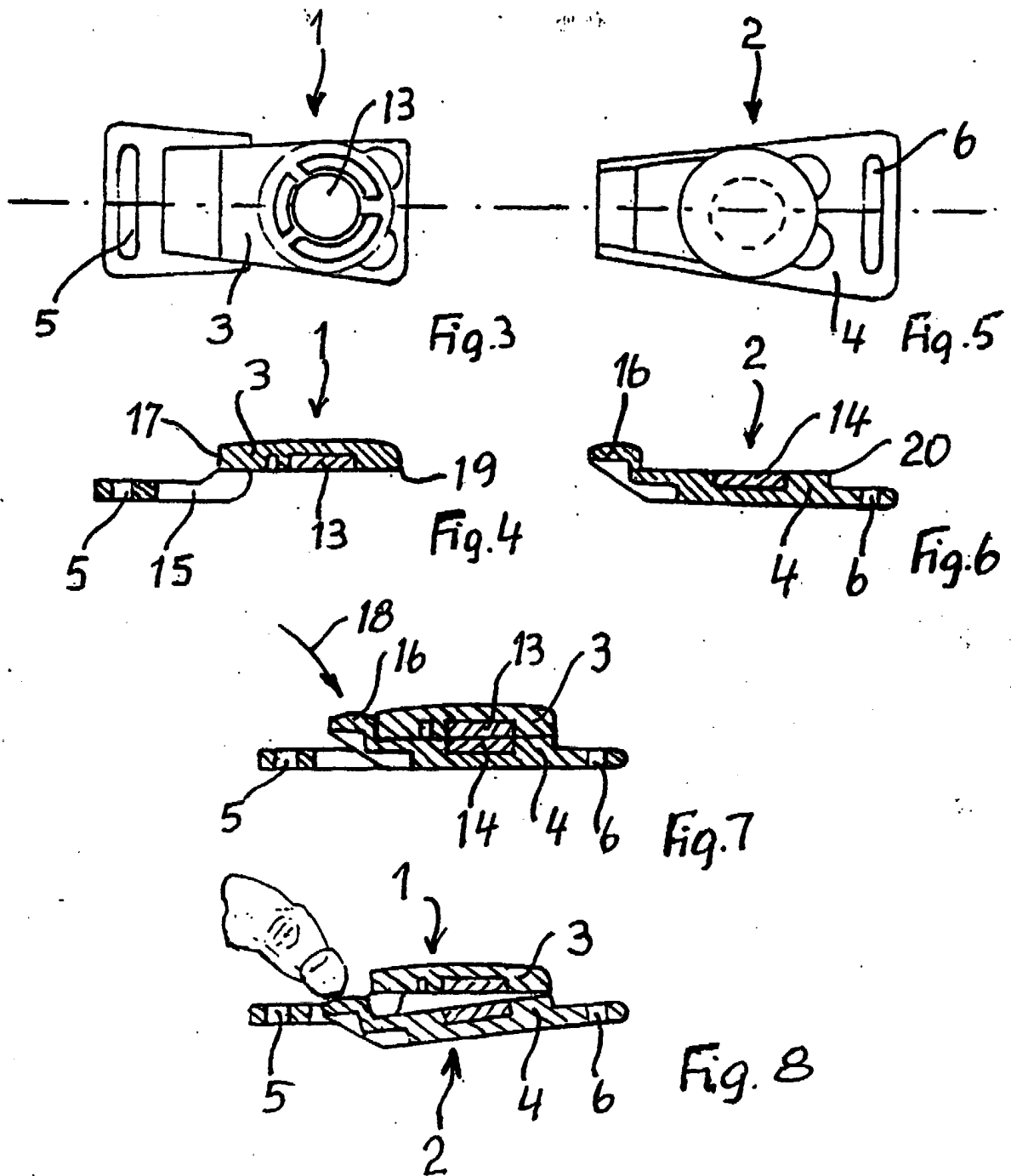
12. Büstenhalter nach einem der Ansprüche 1 bis 11, dadurch gekennzeichnet, daß mindestens ein Verschußteil (27) mit einem Verstellmechanismus (35) für die Länge des mit ihm verbundenen Abschnittes des Büstenhalters versehen ist.

13. Büstenhalter nach einem der Ansprüche 1 bis 12, dadurch gekennzeichnet, daß ein Verschußteil (27) mit einer Betätigungsschleife (38) versehen ist.

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DE 200 18 405 U1

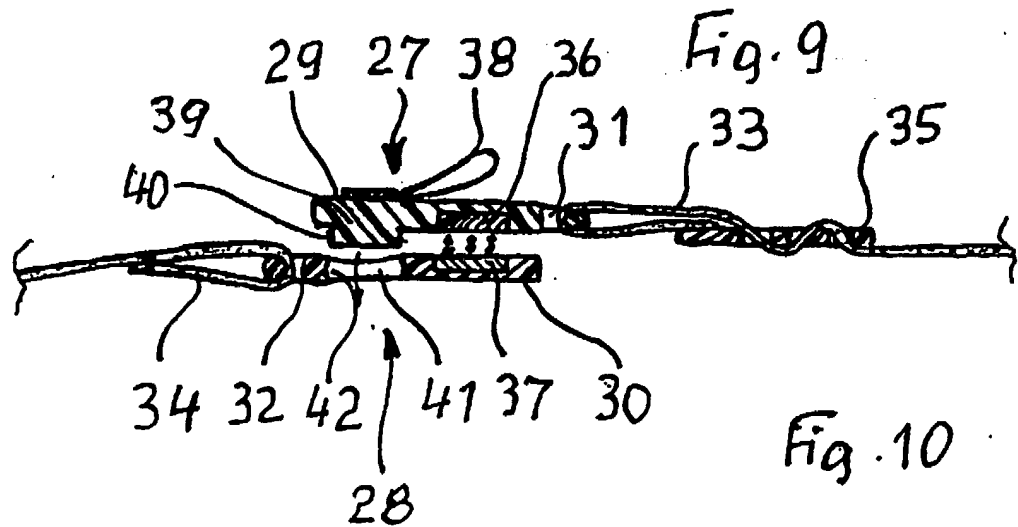
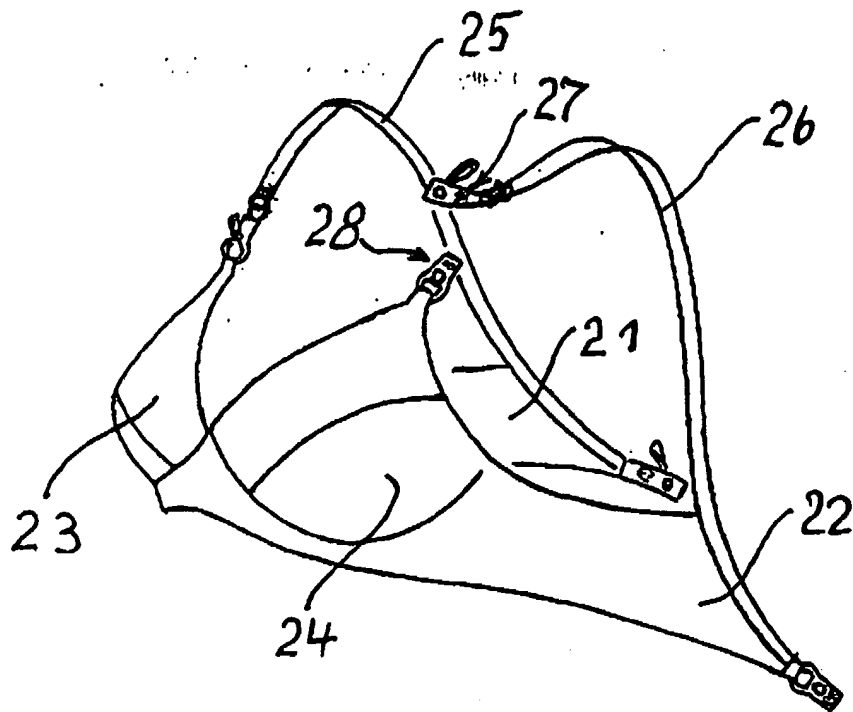
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